

Appln. No. 10/717,226  
Response to Office Action mailed January 29, 2007

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**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings of the claims in the application:

**Listing of Claims:**

Claims 1-157. (Canceled)

Claim 158. (Previously Presented) A tooth whitening patch in a dry state comprising a combination formed from the following materials:

- (1) hydrogen peroxide,
- (2) polyvinyl pyrrolidone,
- (3) hydroxypropylmethyl cellulose, and
- (4) sodium tripolyphosphate,

wherein the patch has adhesive strength, and wherein the adhesive strength of the patch will increase upon becoming hydrated by applying the patch to a user's teeth.

Claim 159. (Previously Presented) The patch of claim 158, wherein the adhesive strength of the patch, upon becoming hydrated, at least doubles as compared to the dry state.

Claim 160. (Previously Presented) The patch of claim 158, wherein the patch comprises two layers and one of the layers is the layer which provides the adhesive strength of the patch.

Claim 161. (Previously Presented) The patch of claim 160, wherein the other layer is a backing layer.

Claim 162. (Previously Presented) The patch of claim 160, wherein the layer with adhesive strength comprises a combination formed from hydrogen peroxide and polyvinyl pyrrolidone.

Claim 163. (Previously Presented) The patch of claim 162, wherein the other layer is a backing layer.

Claim 164. (Previously Presented) The patch of claim 162, wherein the hydrogen peroxide and polyvinyl pyrrolidone form a complex via hydrogen bonding.

Claim 165. (Canceled)

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- Claim 166. (Previously Presented) The patch of claim 158, wherein the combination further comprises one or more plasticizers.
- Claim 167. (Previously Presented) The patch of claim 166, wherein the plasticizers are selected from the group consisting of propylene glycol and glycerin.
- Claim 168. (Previously Presented) The patch of claim 158, wherein the combination further comprises a stabilizer for hydrogen peroxide.
- Claim 169. (Previously Presented) The patch of claim 158, wherein about 10% or less of the materials in the dry state patch will remain on a dry surface after contact with the surface.
- Claim 170. (Previously Presented) The patch of claim 169, wherein such a dry surface is skin.
- Claim 171. (Previously Presented) The patch of claim 158, wherein the adhesive strength of the patch, upon becoming hydrated, fixes the patch to the user's teeth.
- Claim 172. (Previously Presented) The patch of claim 171, wherein the fixed patch has sufficient contact time with the user's teeth to allow the patch to whiten the user's teeth.
- Claim 173. (Previously Presented) A tooth whitening patch comprising a combination formed from the following materials:
- (1) hydrogen peroxide,
  - (2) polyvinyl pyrrolidone,
  - (3) hydroxypropylmethyl cellulose, and
  - (4) sodium tripolyphosphate,
- wherein the patch is in a dry state such that about 10% or less of the materials will adhere to a dry surface upon contact with the surface, and is adapted to strongly adhere to a user's teeth upon becoming hydrated when applied to such a user's teeth.
- Claim 174. (Previously Presented) The patch of claim 173, wherein the adherence of the patch to the teeth, upon becoming hydrated, at least doubles as compared to the dry state.
- Claim 175. (Previously Presented) The patch of claim 173, wherein the patch comprises two layers and one of the layers is the layer which provides adhesive properties to the patch.

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- Claim 176. (Previously Presented) The patch of claim 175, wherein the other layer is a backing layer.
- Claim 177. (Previously Presented) The patch of claim 175, wherein the layer with adhesive properties comprises a combination formed from hydrogen peroxide and polyvinyl pyrrolidone.
- Claim 178. (Previously Presented) The patch of claim 177, wherein the other layer is a backing layer.
- Claim 179. (Previously Presented) The patch of claim 177, wherein the hydrogen peroxide and polyvinyl pyrrolidone form a complex via hydrogen bonding.
- Claim 180. (Previously Presented) The patch of claim 177, wherein the combination further comprises sodium tripolyphosphate.
- Claim 181. (Previously Presented) The patch of claim 173, wherein the combination further comprises one or more plasticizers.
- Claim 182. (Previously Presented) The patch of claim 181, wherein the plasticizers are selected from the group consisting of propylene glycol and glycerin.
- Claim 183. (Previously Presented) The patch of claim 173, wherein the combination further comprises a stabilizer for hydrogen peroxide.
- Claim 184. (Previously Presented) The patch of claim 173, wherein such a dry surface is skin.
- Claim 185. (Previously Presented) The patch of claim 173, wherein the adhesive strength of the patch, upon becoming hydrated, fixes the patch to the user's teeth.
- Claim 186. (Previously Presented) The patch of claim 185, wherein the fixed patch has sufficient contact time with the user's teeth to allow the patch to whiten the user's teeth.
- Claim 187. (Previously Presented) A tooth whitening patch in a dry state comprising a combination formed from the following materials:
- (1) hydrogen peroxide,
  - (2) polyvinyl pyrrolidone, and
  - (3) sodium tripolyphosphate,
- wherein the patch has adhesive strength, wherein the adhesive strength of the patch will increase upon becoming hydrated by applying the patch to a user's teeth.

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- Claim 188. (Previously Presented) The patch of claim 187, wherein the adhesive strength of the patch, upon becoming hydrated, at least doubles as compared to the dry state.
- Claim 189. (Previously Presented) The patch of claim 187, wherein the patch comprises two layers and one of the layers is the layer which provides the adhesive strength of the patch.
- Claim 190. (Previously Presented) The patch of claim 189, wherein the other layer is a backing layer.
- Claim 191. (Previously Presented) The patch of claim 189, wherein the layer with adhesive strength comprises a combination formed from hydrogen peroxide and polyvinyl pyrrolidone.
- Claim 192. (Previously Presented) The patch of claim 191, wherein the other layer is a backing layer.
- Claim 193. (Previously Presented) The patch of claim 191, wherein the hydrogen peroxide and polyvinyl pyrrolidone form a complex via hydrogen bonding.
- Claim 194. (Previously Presented) The patch of claim 191, wherein the combination further comprises sodium tripolyphosphate.
- Claim 195. (Previously Presented) The patch of claim 187, wherein the combination further comprises hydroxypropylmethyl cellulose.
- Claim 196. (Previously Presented) The patch of claim 187, wherein the combination further comprises one or more plasticizers.
- Claim 197. (Previously Presented) The patch of claim 196, wherein the plasticizers are selected from the group consisting of propylene glycol and glycerin.
- Claim 198. (Previously Presented) The patch of claim 187, wherein the combination further comprises a stabilizer for hydrogen peroxide.
- Claim 199. (Previously Presented) The patch of claim 187, wherein about 10% or less of the materials in the dry state patch will remain on a dry surface after contact with the surface.
- Claim 200. (Previously Presented) The patch of claim 199, wherein such a dry surface is skin.
- Claim 201. (Previously Presented) The patch of claim 187, wherein the adhesive strength of the patch, upon becoming hydrated, fixes the patch to the user's teeth.

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- Claim 202. (Previously Presented) The patch of claim 201, wherein the fixed patch has sufficient contact time with the user's teeth to allow the patch to whiten the user's teeth.
- Claim 203. (Canceled)
- Claim 204. (Canceled)
- Claim 205. (Currently Amended) ~~The adhesive layer of claim 203, wherein the combination further comprises a polyphosphate~~An active ingredient-containing adhesive layer for application to teeth comprising a combination formed from:  
(1) hydrogen peroxide,  
(2) polyvinyl pyrrolidone, and  
(3) a polyphosphate,  
wherein the adhesive layer is in a dry state and has adhesive strength, and wherein the adhesive strength of the adhesive layer will increase upon becoming hydrated by applying the adhesive layer to a user's teeth.
- Claim 206. (Previously Presented) The adhesive layer of claim 205, wherein the polyphosphate is selected from the group consisting of tetrasodium pyrophosphate, sodium acid pyrophosphate, sodium hexametaphosphate, sodium hexametaphosphate, sodium tripolyphosphate, sodium potassium tripolyphosphate, tetrapotassium pyrophosphate, acidic sodium metapolyphosphate and combinations thereof.
- Claim 207. (Previously Presented) The adhesive layer of claim 205, wherein the polyphosphate is sodium tripolyphosphate.
- Claim 208. (Currently Amended) ~~The adhesive layer of claim 203, wherein the combination further comprises one or more plasticizers~~An active ingredient-containing adhesive layer for application to teeth comprising a combination formed from:  
(1) hydrogen peroxide,  
(2) polyvinyl pyrrolidone, and  
(3) one or more plasticizers,  
wherein the adhesive layer is in a dry state and has adhesive strength, and wherein the adhesive strength of the adhesive layer will increase upon becoming hydrated by applying the adhesive layer to a user's teeth.
- Claim 209. (Previously Presented) The adhesive layer of claim 208, wherein the plasticizers are selected from the group consisting of propylene glycol and glycerin.

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- Claim 210. (Currently Amended) The adhesive layer of claim ~~203~~208, wherein the hydrogen peroxide and polyvinyl pyrrolidone form a complex via hydrogen bonding.
- Claim 211. (Currently Amended) The adhesive layer of claim ~~203~~208, wherein the combination further comprises a stabilizer for hydrogen peroxide.
- Claim 212. (Currently Amended) A tooth whitening patch comprising two layers, wherein one of the layers is ~~the~~ an active ingredient-containing adhesive layer of claim 203 for application to teeth comprising a combination formed from:
- (1) hydrogen peroxide,
- (2) polyvinyl pyrrolidone,
- wherein the adhesive layer is in a dry state and has adhesive strength, and wherein the adhesive strength of the adhesive layer will increase upon becoming hydrated by applying the adhesive layer to a user's teeth.
- Claim 213. (Previously Presented) The patch of claim 212, wherein one of the layers comprises hydroxypropylmethyl cellulose.
- Claim 214. (Previously Presented) The patch of claim 212, wherein the other layer is a backing layer.
- Claim 215. (Previously Presented) The patch of claims 212, wherein one of the layers comprises sodium tripolyphosphate.
- Claim 216. (Previously Presented) The patch of claims 212, wherein the adhesive layer comprises sodium tripolyphosphate.
- Claim 217. (Previously Presented) The patch of claims 212, wherein one or both of the layers comprise one or more plasticizers.
- Claim 218. (Previously Presented) The patch of claim 217, wherein the plasticizers are selected from the group consisting of propylene glycol and glycerin.